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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,342	10/01/2003	Stefan Hakansson	P10993-US3	7137
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ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER CHANG, JUNGWON	
			ART UNIT	PAPER NUMBER
			2154	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/676,342

Applicant(s)

HAKANSSON ET AL.

Examiner

JUNGWON CHANG

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-13, 16-20, 23 and 29-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-12, 16-20, 23 and 29-34 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to amendment filed on 02/06/08. Claims 5, 14, 15, 21, 22 and 24 have been canceled, and new claims 29-34 have been added. Claims 1-4, 6-13, 16-20, 23 and 29-34 are presented for examination.
2. The rejection under 35 U.S.C. 112, first paragraph to Claims 1-13 and 25-26 is withdrawn in view of applicant's response.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-4, 6-13, 16-20, 23 and 29-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamalainen et al. (US 6,477,176 B1), hereinafter Hamalainen, in view of Bruhn (US 6,347,081 B1).
5. As to claims 1 and 25, Hamalainen discloses the invention substantially as claimed, including a method for performing discontinuous transmission (DTX) in a communications system (col. 2, lines 12-26; col. 3, lines 15-26) in which source data in

a step is interleaved for transmission from a first component in the system to a second component in the system (col. 3, lines 49-67), the method comprising the steps of:

detecting by the first component, periods of source data inactivity (col. 3, lines 46-49; col. 4, lines 62-65); and

transmitting silence descriptor (SID) frames from the first to second component during the periods of source data inactivity (4, fig. 1; col. 3, lines 41-56), wherein the SID frames prior to transmission are interleaved (col. 8, lines 27-28; col. 7, lines 30-33) using a different interleaving algorithm as compared to that used for the channel source data (using the two different algorithms are design choice of the software programmer; col. 3, lines 46-56; col. 4, lines 55-65).

6. Hamalainen does not specifically disclose channel encoding. However, Bruhn discloses channel encoding (col. 3, line 66 – col. 4, line 21, “channel coding”; col. 4, lines 28-50, “channel decoder”). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hamalainen and Bruhn because Bruhn’s channel encoding would improve the reliability of Hamalainen’s system by allowing the channel encoder to identify the characteristics of the received frame, thereby error can be corrected when needed (Bruhn, col. 4, lines 10-27).

7. Hamalainen does not specifically disclose AMR and SID frames include codec mode information. Bruhn discloses AMR (col. 2, lines 4-20, “AMR”; col. 7, lines 41-60) and SID frames include codec mode information (col. 3, line 35 – col. 4, line 21). It

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would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hamalainen and Bruhn because Bruhn's teaching would provide adaptive multi rate systems and selectively use different channel coding schemes depending on the kind of the SID frame being transmitted, as taught by Bruhn (col. 3, lines 58-65; col. 7, lines 56-60).

8. As to claims 2, 9 and 10, they are rejected for the same reasons set forth in claims 1 and 16 above.

9. As to claim 3, Hamalainen discloses the SID frames include comfort noise (CN) parameters (col. 3, lines 46-49).

10. As to claim 4, Hamalainen discloses type of SID frame to indicate a transition from source data activity to source data inactivity (col. 4, lines 11-35).

11. As to claims 6 and 7, Hamalainen does not specifically disclose each SID frame includes a gross bit pattern. However, Bruhn discloses each SID frame include a gross bit pattern (col. 1, lines 51-53; col. 4, lines 17-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hamalainen and Bruhn because Bruhn's SID bit pattern would provide the information to identify the frame as a SID frame and to distinguish the SID frame from regular speech frames (Bruhn, col. 1, lines 51-53).

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12. As to claim 8, Hamalainen discloses time division multiple access wireless system (col. 6, lines 54-61).

13. As to claims 11 and 12, they are rejected for the same reasons set forth in claims 1 and 25 above.

14. As to claims 16 and 27, they are rejected for the same reasons set forth in claims 1 and 25 above. In addition, Hamalainen does not specifically disclose each SID frame includes a gross bit pattern. However, Bruhn discloses each SID frame include a gross bit pattern (col. 1, lines 51-53; col. 4, lines 17-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hamalainen and Bruhn because Bruhn's SID bit pattern would provide the information to identify the frame as a SID frame and to distinguish the SID frame from regular speech frames (Bruhn, col. 1, lines 51-53).

15. As to claim 20, Hamalainen discloses transmitting silence descriptor (SID) frames during the periods of speech inactivity (col. 3, lines 46-49).

16. As to claim 23, Hamalainen discloses type of SID frame to indicate a transition from source data activity to source data inactivity (col. 4, lines 11-35).

17. As to claims 17-19, 26 and 28-34, they are rejected for the same reasons set

forth in claims 1, 16, 25 and 27 above.

18. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

19. Applicant's arguments filed 2/6/08 have been fully considered but they are not persuasive.

(1) Applicant's asserts that "The Applicants have amended the independent claims to recite that the communication system is an adaptive multi-rate (AMR) communications system. Hamalainen does not show an AMR system, and therefore does not address the need to convey codec mode information to keep link adaptation going. Likewise, Bruhn does not address this problem during DTX or escape (configuration change) signaling. There is no teaching or suggestion in Bruhn of including codec mode information in the SID frames."

In response to applicant's arguments, the recitation "adaptive multi-rate (AMR) communications system" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re*

Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Furthermore, Bruhn discloses communication system is an adaptive multi-rate (AMR) communications system (col. 2, lines 4-20, "AMR"; col. 7, lines 41-60).

(2) Applicant's asserts that "Bruhn does not disclose or suggest interleaving the SID frames such that certain of the transmitted SID frames are interleaved using a different interleaving algorithm as compared to that used for source data. Bruhn relates to a method for reducing power during periods of speech inactivity for the GSM system. The system transmits SID frames at a reduced power level using all or at least a part of the available so far unused frames (Col. 3, lines 22-29). Bruhn proposes repeatedly transmitting a SID frame at a lower power level. As a consequence of this way of providing protection against channel errors, it does not matter whether or not interleaving is applied to the SID frames."

The examiner respectfully disagrees. Independent Claims 16 and 27 do not recite the limitation of "interleaving the SID frames such that certain of the transmitted SID frames are interleaved using a different interleaving algorithm as compared to that used for source data". Furthermore, Bruhn explicitly discloses interleaving the SID frames such that certain of the transmitted SID frames are interleaved using a different interleaving algorithm as compared to that used for source data (col. 6, lines 10-23, "subsequent processing units...interleaver").

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jungwon Chang whose telephone number is 571-272-3960. The examiner can normally be reached on 6:30-2:00 (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JUNGWON CHANG/

Primary Examiner, Art Unit 2154

May 27, 2008

Application Number**Application/Control No.**

10/676,342

Examiner

JUNGWON CHANG

**Applicant(s)/Patent under
Reexamination**

HAKANSSON ET AL.

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